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NHTSA 03-15651-23

October 30, 2003

Ms. Jacqueline Glassman,
Chief Counsel, National Highway Traffic Safety Administration
Docket Management Facility
U.S. Department of Transportation
400 Seventh Street, SW
Nassif Building, PL -401
Washington, DC 20590-001

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**RE: NHTSA Docket No. NHTSA 03-15651—Comments on July 17, 2003
Federal Register NHTSA Proposed Ruling Notice**

Dear Ms. Glassman:

Emergency Technology, Inc, dba as Sound Off, Inc. appreciates this opportunity to comment on the draft interpretations published by NHTSA in the July 17, 2003 Federal Register. The draft interpretations are a response to two questions raised by Calcoast Labs about the replacement of OEM-installed lights with different equipment in the aftermarket. Sound Off Inc. is a manufacturer of emergency and commercial vehicle lighting and sells lighting both as original equipment and replacement equipment.

Sound Off believes that the interpretations are far broader than they need to be to cover the specific factual situations referred to in the Calcoast Labs' questions. These broad interpretations would effectively lock in the technology of the equipment used on a vehicle and would appear to prevent any Light Emitting Diode (LED) retrofit or dealer-installed options with regard to LED lighting.

As a starting point, §5.8 of FMVSS 108 requires that

"...each lamp, reflective device, or item of associated equipment manufactured to replace any lamp, reflective device, or item of associated equipment on any vehicle to which this standard applies, shall be designed to conform to this standard."

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In addition, 49 USC §30122 prohibits a "manufacturer, distributor, dealer, or motor vehicle repair business" from knowingly making inoperative any part of a device or element of a design in compliance with an applicable vehicle safety standard.

Under these circumstances, Sound Off believes that if the replacement lamp, reflective device or item of motor vehicle equipment meets the applicable performance safety standards for the lamp, reflective device or item of motor vehicle equipment that it replaces, the vehicle will continue to meet the applicable safety standards that it originally met with respect to the replacement equipment.

In promulgating and interpreting its standards, NHTSA has generally recognized the FMVSS as performance standards. NHTSA has recognized the desirability of permitting a manufacturer to choose any design that will meet the performance requirements of the standard. NHTSA has been careful to limit the design restrictions contained in the standards to those necessary to achieve the desired safety performance.

In the case of these interpretations, the requirement that the equipment, in addition to meeting the performance requirements of the standard, must also conform to the standard in the same manner as the original equipment for which the vehicle manufacturer certified compliance would appear to be unduly restrictive. Similarly, the requirement that the replacement lamps must comply with Standard 108 using the same light source as the original equipment, also appears to be unnecessarily limiting. Sound Off believes that although these restrictions might prevent those rare instances where compliance might be compromised with replacement lamps that are improper or inappropriately installed for the particular application, on balance they will lead to decreases in the safety benefits available in the marketplace.

For example, a study by Hewlett Packard found that on the average LEDs illuminate 200ms faster than incandescent bulbs. This means faster braking distance response time that would allow a full car length of extra stopping distance for a vehicle traveling at 65 miles per hour.

We have the following additional concerns with the proposed ruling that we want to make NHTSA aware of:

1. The effect of controlling the light source, not just the performance of the lamp, would prevent the motoring public from getting the benefits of improved technology and better lighting on vehicles in the field. For example, the consumer and public safety will suffer if the public is unable to use new technologies such as LED's as replacement equipment. LED's are continually being designed to have greater viewing angles and more consistent colors in addition to the known benefit of the much quicker time

to energize versus traditional incandescent technology. If lighting manufacturers need to continue to produce parts using the same level of technology for replacement purposes, consumers will be unable to retrofit their vehicles with equipment containing the latest technological advances in safety. There will be much slower incorporation of new technology on products in customer use. We believe that the explicit language of S5.8 of FMVSS 108 encourages the adoption of new technology by setting forth performance requirements independent of the light source.

2. Under the proposed interpretations, the incentive to completely replace a lamp, as opposed to a bulb, decreases, if the replacement lamp is identical to the lamp being replaced. However, if a replacement lamp provides new technology and enhanced performance, it is a positive step to change to new lighting on a vehicle. Not only is there the benefit from the improved performance provided by the new technology, but there is an additional safety advantage, as the user will remove lamps that may have scratched or dull lenses and replace them with brand new, compliant lighting.
3. Because there would be no replacement lamp market for the new technology lamps under the proposed interpretations, the overall market for new technology lamps will be smaller. This will decrease the incentives for lighting manufacturers to invest in design enhancements that provide improved safety performance.
4. We believe that this ruling will have a tremendous cost to the end consumer in both the Truck & Bus Markets. Based upon the proposed ruling, no manufacturers produce completely interchangeable LED Signal product. This is true, despite the fact that essentially every manufacturer has standardized on the same shapes, sizes, mounting applications and standards for illumination. However, manufacturers have different standards for LED count, LED type and optics used to achieve the same end result. These differences in LED count and pattern often are driven by the desire to have some product differentiation or trade dress differences. However, under the proposed interpretations, we believe the following is likely to happen...
 - Lighting Manufacturers will no longer be able to replace their competitors products in the aftermarket. This means that their aftermarket opportunity will only be the direct replacement of lamps on vehicles originally fitted with their lighting products. Clearly this loss of competition will cause replacement lamp prices to soar. The consumer will simply have no alternative but to pay the price quoted.
 - This situation will negate all of the positive industry standardization that has occurred to benefit over the road fleets. Under DOT rules, trucks cannot have lights that are inoperable while the vehicle is in use. If a

driver is 500 miles from home and is forced to replace a non-operational light, he will not be able to replace with any interchangeable light as is the case currently (with matching application lens markings). The driver would be forced to locate the correct brand and model of light to replace what he had on the vehicle originally. The impact of this proposed ruling for vehicles equipped with LED Lighting would be the same as requiring someone to replace a non-operational light bulb with one from only one manufacturer. It would seem as if the ruling would impose a hardship situation for fleets attempting to comply in this case. Where would they get the exact replacement light to get back on the road?

We agree that the aftermarket manufacturer must properly identify appropriate applications for its replacement equipment and must certify that the equipment complies with the applicable standards. We believe that if NHTSA replaces the proposed interpretations with interpretations that focus on the proper identification and marketing of aftermarket products, the user will understand the appropriate applications for the products. We believe that this could eliminate the detrimental effects discussed above, while alleviating NHTSA's concern that compliance could be lost by selection of an incorrect product for the application.

In the draft interpretations, NHTSA also appears concerned with compatibility between the vehicle electrical system and the lighting system. We believe that since lights are certified under the standard using the same input voltage, and are powered the same way at the certification lab, it would be problematic if they somehow performed differently because of the electrical system on the vehicle. We do not believe that NHTSA is suggesting that there should be a certification process for lamps dependent upon the specific electrical system of each vehicle. However, it should also be noted, that aside from the other performance benefits of LED lamps, they also generally result in lower wattage and less amperage draw on the vehicle wiring systems.

Thank you once again for this opportunity to provide inputs to these draft interpretations. Sound Off would be happy to meet with you to demonstrate the safety benefits of LED technology, if that would be helpful to you. If you have any additional questions, please contact me.

Sincerely,



Mark Litke,
Vice-President of Engineering
Sound Off, Inc